N. LESTER TROAST & ASSOCIATES
ARCHITECTS
JUNEAU • ANCHORAGE
ALASKA

SET NO. 1.

S P E C I F I C A T I O N S

Of LABOR and MATERIALS to b e Furnished in the ERECTION of

The

FIRST PRESBYTERIAN CHURCH

For The

BOARD OF NATIONAL MISSIONS OF THE PRESBYTERIAN CHURCH

At

JUNEAU, ALASKA

In Accordance With The Accompanying Drawings, These Specifications and Instructions.

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N. LESTER TROAST & ASSOCIATES
Architects
Juneau Anchorage
Alaska.

Job No. 388 - A

July 27, 1938.

S P E C I F I C A T I O N S

Specifications of all Labor and Materials required for the ERECTION of the **FIRST PRESBYTERIAN CHURCH for the:**

BOARD OF NATIONAL MISSIONS OF THE PRESBYTERIAN CHURCH

at:

JUNEAU, ALASKA

in accordance with the accompanying drawings and these specifications as prepared by:

N. LESTER TROAST & ASSOCIATES
Architects
Juneau Anchorage
Alaska

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GENERAL CONDITIONS

The Owner reserves the right to reject any and all bids.

OWNER:

The word "Owner" shall be taken throughout these Specifications to refer to **the Board of National Missions,** or their duly authorized representative.

ARCHITECT:

The word "Architect" throughout these Specifications shall be taken to mean N. LESTER TROAST & ASSOCIATES, or their duly authorized representative.

CONTRACTOR:

The word "Contractor" used herein shall be the individual, firm or corporation, or its duly authorized representative, who has entered into a Contract to do work called for in these Specifications and Plans.

CONTRACT:

The "Contract" to which these Specifications and Plans refer, is the agreement entered into between the Owner and Contractor and is to become a part of these Specifications. The terms in the Contract, however, are to take precedence over any terms or clauses set forth in these Specifications.

CONTRACT DOCUMENTS:

The Agreement, the Specifications, and the Drawings, with all notes made thereon before the signing of the Agreement, are the Documents forming the Contract.

Copies of all these Documents, signed by the Parties, or identified by the Architect as provided by the Articles of Agreement, shall remain in the custody of the Architect.

INTENT OF DOCUMENTS:

The Documents forming the Contract are complimentary, and what is called for by one, shall be as binding as if called for by all.

The Documents forming the Contract contemplate the building complete in every respect, unless otherwise specified especially, and will be so interpreted by the Architect.

INTENT OF DOCUMENTS: Con't.

Any obvious omission from the Drawings and Specifications must be reported to the Architect by the Contractor before submitting his proposal.

Any ambiguity in the Drawings or Specifications will be interpreted by the Architect, whose decision shall be final.

DRAWINGS:

The drawings and these Specifications are intended to be co-operative. Any work or material shown in one and not in the other or which may be necessary on the part of the Contractor to complete the work in accordance with the true intent and meaning of both, shall be done and furnished without extra charge.

Work not detailed or dimensioned to be executed according to the scale of the drawings. Figured dimensions to take precedence to the measurement by scale.

Any variance from the drawings or specifications in the quality or quantity of work or materials used, the Architect or his representative shall be at liberty at any time before or after the completion of the work, to order such removed, remade or replaced and any work affected by the change to be made good at the Contractor's expense.

RETURN OF DRAWINGS AND SPECIFICATIONS:

All drawings and Specifications furnished by the Architect shall be used for this work only; and as instruments of service, they are the property of the Architect; and all prints, specifications, etc. shall be returned to the Architect upon completion of the work.

DETAIL DRAWINGS:

The Architect will, from time to time, as necessary, furnish detail working drawings which shall be true developements of the scale drawings. The work shall be executed in conformity therewith, and with such directions, instructions and explanations not inconsistent therewith, as may from time to time be given by the Architect.

Where there is a conflict between the small scale drawings and the larger scale drawings, unless otherwise ordered by the Architect, the work shall be executed according to the larger scale drawing.

SHOP DRAWINGS:

Shop Drawings, course plans, etc., must be submitted in triplicate for approval and all work furnished must be in strict accordance when approved. The approval of shop drawings shall be general only in character and not mean that dimensions or drawings have been checked and will in no way relieve the Contractor from the responsibility for proper fitting and construction of the work, nor from the necessity of furnishing materials or workmanship required by the drawings and specifications which may not be indicated in shop drawings when approved.

VERIFICATION:

The Contractor shall immediately report to the Architect for rectification, any error, inconsistency, or omission in the Drawings and Specifications, which he shall discover.

SUPERVISION:

The Contractor shall give his personal supervision to the work and have a competent foreman on the job at all reasonable times.

CHARACTER OF LABOR:

For the work called for in these Specifications, the Contractor shall employ skilled workmen in their various lines and should the Architect notify him that any man on the work in his opinion is incompetent or unfit for the work, such man shall be discharged and not employed again on the work. All labor shall be acceptable to the Owner and the Architect, or their duly authorized representatives.

SUB-CONTRACTORS:

The Contractor shall not sub-let the whole or any part of the work without the written approval of the Architect.

CO-OPERATION:

The Contractor is to have charge of the building and premises until the Contract is complete, subject to the rights of the other Contractors and the Owner, and their representatives.

The Contractor is to clear away from time to time all dirt or rubbish that may result from the building operations and shall protect all materials from damage or loss during the progress of the work. All work when finished shall be delivered up in a clean and perfect condition.

INSPECTION:

The work shall be at all times subject to the inspection of the Owners, the Architect, or their representatives.

Where the Specifications require work to be especially tested or approved, it shall not be tested or covered up without timely notice to the Architect, or the readiness for the inspection, and without his approval thereof or consent thereto.

Should any such work be covered up without such notice, approval or consent, it must, if required by the Architect, be uncovered for examination at the Contractor's expense.

TOOLS, SCAFFOLDING, ETC.:

The Contractor shall furnish all equipment, tools, models, scaffolding, derricks, patterns, etc. necessary for the completion of the work, all of which must be suitable and safe and sufficient in the opinion of the Architect, to complete the work in the specified time.

If, at any time before the commencement of the work, or during the progress of the work, such methods and appliances referred to under this clause appear to be inefficient or inappropriate to produce the quality of the work or to maintain the rate of progress required, he may order the Contractor to make improvements as he may see fit.

SANITARY FACILITIES:

The General Contractor shall provide necessary sanitary facilities for the employees on this work. Same shall be kept in a clean and sanitary condition at all times and shall be removed from time to time as it becomes necessary due to the work.

LAWS:

The Owner shall not be liable or accountable for any accident that may happen to the Builder, employee, or any person or persons while the building is in the process of erection. The Contractor shall comply with all Territorial, Municipal, Corporation and Insurance laws, rules and ordinances. The Contractor shall obtain and pay for and maintain proper liability insurance to fully protect the Owner at all times during the course of construction.

The Owner shall not be liable for any loss or damage that may happen to any part of the work, damage by fire excepted.

The Contractor is solely responsible for all damage, injury or delay caused by himself or other Contractors or by his or their men to the neighboring property or the public, while the building is under construction.

FIRE INSURANCE:

The Owner shall effect insurance of the building and materials on the premises, covering his own and the Contractor's interests therein against loss or damage by fire.

EXTRA WORK:

No extra work will be allowed nor paid for unless ordered AS SUCH by the Architect IN WRITING. All deductions and additions in labor and materials when so authorized and directed, shall be calculated at a cost plus ten percent (10%) for profit and overhead. These alterations will not invalidate this Contract.

SURVEY:

The Contractor shall arrange in a manner satisfactory to the Architect to set all grade and line stakes in accordance with the drawings and to check levels and lines from time to time as the work progresses. All work shall be laid out on the premises or otherwise by the Contractor, who will be held responsible for its correctness and no plea as to who will be held responsible as to the acts, orders, directions of supervision of the Owner, Architect or any other person will be admitted in justification of any errors or construction or departure from the terms of the Contract Documents. Grades shall be figured from datum indicated on the Plot Plan or to the elevations.

PAYMENTS:

All payments for work will be made upon a certificate, of the Architect, who will grant a certificate within five (5) days after the receipt of the Contractor's statement issued monthly, providing such statement checks with the records approved by the Architect.

The Owner shall make payments on account of the Contract as provided herein, as follows: On or about the tenth day of each month, Ninety (90%) percent of the value, based on the Contract prices, of labor and materials incorporated in the work and of materials suitably stored at the site thereof up to the last day of the previous month, as estimated by the Architect, less the aggregate of previous payments; and upon substantial completion of the entire work, a sum sufficient to increase the total payments to Ninety (90%) percent of the Contract.

PAYMENTS: Con't.

Final payment shall be due thirty (30) days after substantial completion of the work provided the work be then fully completed and the Contract fully performed.

The issuance of any certificate of payment shall not be considered under the Contract, as an acceptance of any faulty work, nor exempt the Contractor from the obligation of correcting same.

TIME TO COMPLETE:

It shall be required of the Contractor that the work shall be carried on with sufficient workmen and materials to the satisfaction of the Architect, to insure completion of all work specified in these Plans and Specifications, by the date stipulated in the Contract.

Should the Contractor, at any time, during the progress of said work, refuse or neglect to provide sufficient workmen or materials, after three (3) days notice in writing has been given to furnish the said materials or finish the work, the Owner shall have the power to provide materials and workmen as deemed necessary by the Architect. The cost thereof shall be deducted from the amount due or to become due to the Contractor; or the Owner shall have the right after three (3) days written notice, to terminate this Contract and take possession of all materials and equipment on the site and all materials in transit or ordered for the job by the Contractor and to proceed to complete the work.

PERMITS:

The Contractor shall secure and pay for all permits necessary for the erection of the building, including all permits for water, sewer and street use.

MATERIALS:

As far as possible and where the material does not effect the strength, quality or cost of the work, Contractor shall use Alaska materials.

STATEMENT OF COST:

The Contractor before starting the work, shall furnish to the Architect, a segregated list of items entering into his Contract, giving quantities of units and cost per unit, in order that the Architect may readily agree with the Contractor on requisitions for payments.

BOND:

The Contractor shall, together with a good and solvent company as surety, which company is licensed to operate in the Territory of Alaska, make and deliver to the Owner, a Bond in the amount of 50% of the Contract price, which shall be payable to and collectable by the Owner upon failure of the Contractor to faithfully and fully comply with each and all conditions of these Specifications. The Contractor shall furnish this bond within ten (10) days after the signing of the Contract.

ACCEPTANCE:

After the work herein called for has been furnish according to the Plans and Specifications and in accordance with the terms of the Contract. the work shall be accepted by the Architect and the Owner, or their representatives, subject, however, to the Contractor's guarantee.

GUARANTEE:

The Contractor shall guarantee to the Owner to make good any defects in material or workmanship that may develop in the work done under these Plans and Specifications, for a period of one (1) year after the acceptance.

RELEASE:

The Contractor further agrees that, before applying for the final certificate of payment, that he shall deliver to the Architect such proof as he may require, that he has paid all bills and settled all claims against the building for labor and materials.

EXCAVATION

GENERAL:

The Contractor shall comply with the General Conditions on the first pages of these Specifications.

Excavate for all trenches, footings, chimney, piers, outside steps, etc., as shown on the plans or to the elevations shown. The general excavation is to be carried to the elevations shown on the plans and must be of sufficient width to clear all construction by at least fifteen (15") inches.

The bottom of all trenches are to be level and even and to be inspected by the Architect before the footing courses are poured. If not considered compact or solid enough, the same shall be carried down to such a depth as required by the Architect.

After the excavation is finished, any place where excavation for footings or foundation is found to be below the elevation shown on the plans, it shall be brought up to the indicated grade by filling in with plain concrete, as specified, which shall be paid for by this Contractor.

ROCK EXCAVATION:

The Contractor shall state in his proposal, the amount to be added to the contract price for each cubic yard of rock encountered and removed. The cubic yard price shall include all blasting and other items incidental to the removal of rock and the removal of earth. All boulders and pieces of rock larger in dimensions than two (2) yards,

ROCK EXCAVATION. Cont.

shall be considered as rock. All boulders and rock smaller than two (2) cubic yards are to be considered as earth.

FILL:

Refill around the walls with damp earth to the required grade. Materials not needed for filling or refilling to be distributed over site.

GRADING:

Fill between the front of the building and the street to the grade indicated on the drawings.

The grading of the property will not be included in this Contract but Contractor will be required to distribute the materials excavated, as directed.

PUMPING:

The Contractor shall furnish and do all pumping and bailing necessary to keep the basement and excavation free from water from any source.

MASON WORK

GENERAL:

The Contractor shall comply with the General Conditions on the first pages of these Specifications.

This Contractor shall provide all lumber, bolts, nails, and other materials required and shall build the forms for concrete neatly to exact dimensions as shown on the plans. The forms and bracing shall have sufficient strength to prevent sagging when filled and tamped. Surfaces of all forms in contact with exposed concrete shall be as smooth as surfaced lumber will make.

Methods of form work to be approved before starting work.

CAMBERS:

All forms shall be cambered 1/4" for each 10'00" span.

CHAMFERS:

Place 1" chamfers in the corners of all forms where edges of members will be exposed in the completed building.

CEMENT:

All Portland Cement shall be Superior or Diamond, of a first class quality, and shall pass the inspection and test required by the Standard Specifications for Portland Cement, adopted by the American Society for Testing Materials. No foreign materials will be accepted for this work. All cement delivered to the job shall be kept in water tight sheds and will be rejected if same becomes lumpy or damaged in any way.

SAND:

All sand shall be clean, coarse, sharp and of grains varying in sizes, free from loam, clay, sticks or vegetable matter, and is to be of suitable quality for concrete work.

GRAVEL:

Washed gravel to be used in concrete work shall be free from clay or other impurities which would impair its use for this work and shall be approved by the Architect.

CONCRETE MIXING:

Hand mixing shall be done on tight platforms. The sand and cement shall be thoroughly mixed dry. Gravel added and mixed. Then add sufficient water to form a mixture just sufficiently wet to flow when tamped.

Batch mixing done in mechanical mixers must have a properly controlled water supply.

The Contractor shall provide at least one (1) three (3) cu. ft. mixer.

PLAIN CONCRETE:

Plain concrete shall be used in footings and backfilling to proper level of all excavated areas which are to receive the loads of walls and columns.

Plain concrete shall be mixed in proportions one part of cement, two and one-half parts of sand and five parts of gravel (1:2½:5).

REINFORCED CONCRETE:

Reinforced concrete shall be used in all column footings, columns, foundation walls, chimney and stairs.

Reinforced concrete shall be mixed in proportions of one part of cement, two parts of sand and four parts of gravel, except as specified (1:2:4).

The concrete after being thoroughly mixed, having had the proper amount of water added, shall be immediately deposited with care, in the forms in such a manner that the stone, sand and cement will not separate.

POURING:

No concrete shall be used that has been mixed more than ten (10) minutes.

All wall forms are to have openings at bottoms so that they can be cleaned out immediately before pouring.

Concrete shall be poured continuously. When pouring is interrupted, any and all surfaces which have had time to set, shall be thoroughly cleaned and wet before fresh concrete is laid.

Concrete screeds shall not be allowed to remain in slab longer than twenty (20) minutes after pouring.

PATCHING AND POINTING:

After the forms are removed all surface voids shall be neatly filled and all the rough places shall be smoothed over in a workmanlike manner. Pointing shall be done immediately after removing the forms.

SPADING:

During the pouring of all concrete work, sufficient labor shall be provided to thoroughly spade the concrete, thereby eliminating all voids and pockets around steel and against forms and shall be carefully done to keep stone and gravel from the finished surface.

FINISH:

All exposed surfaces of concrete throughout the building interior which forms finished surfaces are to be straight, smooth, true and level and same are to be rubbed down and washed, removing all unsightly marks, etc.

All exterior walls to a point 12" below finish grade shall be stuccoed with a Portland cement stucco,

BASEMENT FLOOR:

After all pipes and other things to go under floor have been placed, trenches and low spots filled, puddled and tamped, the ground shall be graded as hereinbefore specified. Over this grade there shall be placed a fill of clean sand or gravel which shall be graded, levelled, tamped and rolled to a thickness of five (5") inches. On top of this, there shall be placed a course of 1:2:4 concrete, reinforced as specified on drawings, followed by and placed integral therewith, a cement finish of sand and cement. The cement finish should be rodded and troweled to a perfectly smooth and even finish.

REINFORCING STEEL:

All reinforcing steel used in the concrete work shall be deformed bars of the Truscon Steel Company's manufacture or equal, rolled from Billet stock, and shall have an elastic limit of not less than one half the ultimate strength, and ultimate strength of between 55,000 and 65,000 pounds per square inch. It shall bend cold at any angle of 180 without fracture, on a diameter equally the thickness of the bar. All bars shall be of open hearth steel, meeting the Standard A. S. T. M. Specifications.

REINFORCING MESH:

The reinforcing mesh used in the concrete work, unless otherwise specified, shall be of the American Steel & Wire Co. triangular mesh or equal, as indicated on the plans and details.

STEEL SPACING:

All bars shall be bent and spaced as shown on the Plans and details.

WATERPROOFING:

The concrete for floors and walls of basement shall be waterproofed by the use of hydrated lime in the mixture. To each 94 lb. bag of cement used, add 10 pounds of lime.

FLUE LINING:

From a point four (4') feet below the level of the first floor extending vertically the entire length of the chimney, provide terra cotta flue lining of the sizes indicated on the Plans.

LATH AND PLASTERING

LATH:

All interior walls and wood partitions and ceilings throughout the building, and boiler room only in the basement, and as hereinafter specified, are to be covered with 1/4" insulation board plaster lath, applied according to the manufacturer's directions.

Use Cornerite in all internal corners.

SAND:

All sand for plaster shall be clean, coarse, sharp and of grain varying in sizes, free from loam, clay, sticks or other vegetable matter.

PLASTER:

The mortar for brown coat work shall be U. S. Gypsum Company's "Ivory", or equal approved.

PLASTERING:

Plastering shall be to 5/8" grounds.

The walls and ceilings throughout the building, except as otherwise specified, are to be given a scratch coat of mortar, as specified, and are to be thoroughly scratched to secure proper bond for the second coat. The second coat shall be applied as soon as the first coat has sufficiently set to allow working upon, which surface shall be straightened with darby and straight edge. The finish coat shall be a sand float finish using a carpet float. **Lavatories, Toilet Rooms and Kitchen** are to be finished in a hard finish of lime putty and plaster of paris, troweled hard and smooth.

PLASTERING: Con't.

All plaster shall be applied in strict accordance with the manufacturer's directions.

CORNER BEADS:

This Contractor shall install corner beads on all exposed corners. Corner beads shall be of Truscon Steel Company's manufacture, or equal approved. Corner beads are to be plumb and in perfect alignment to form true corners where shown.

PATCHING:

This Contractor is required after all work is completed, or when so directed by the Architect, to do all patching required.

GUARANTEE:

This Contractor shall guarantee all plaster work against checking, poppings, cracks, or falling off for a period of one (1) year after completion of the work, and shall make good any damage arising from faulty workmanship.

CARPENTER WORK

GENERAL:

The Contractor shall comply with the General Conditions on the first pages of these Specifications.

The Contractor shall furnish all labor and materials for the completion of the carpentry work on the building, as shown on the plans and details and sections, and as called for in these specifications.

MATERIALS:

All materials for wood walls, partitions, joists, roof, etc. shall be #2 Alaska Spruce, Hemlock or Fir, free from knots, sap and shakes. Bridging shall be 2" x 2", or 1" x 4" rough spruce.

All sheathing required for exterior walls, floors, etc. shall be #2 Common Alaska Spruce, Hemlock or Fir, laid diagonally and nailed on every bearing.

Before laying finished floor, this Contractor is to cover rough floor with a good grade of sheathing paper, weighing not less than fifty (50#) pounds to the five hundred (500') foot roll. Lap at least three (3") inches.

FLOORING:

This Contractor shall cover all floors with 1" vx 3" V.G. T & G #2 clear Hemlock flooring, and shall be laid and finished by a Floor Contractor.

CORNICES:

Build the several lines of cornices exactly as shown or detailed.

CUPBOARDS AND CLOSETS:

All cupboards shown on the plans shall be as detailed or herein specified. All material for shelves and sides of cupboards shall be 7/8" material. All counter shelves shall be 1-1/8" material. Front of drawers shall be 7/8"; sides and backs shall be 5/8"; bottoms 1/4" plywood. Doors shall be 7/8" panel doors, all of good quality Fir, free from knots and sap.

Furnish and install Fuller #724 Metal Cool Closet Ventilators and Wire Cooler Shelves, or equal, as shown on the plans.

TRIM:

All trim, base, molding, etc. are to be as designed. All trim throughout the building, except as noted, shall be smooth, dry, good quality Fir, free from worm holes, checks, cracks, knots and other defects. Trim to be machine sanded at shop and hand sanded at building.

GROUNDS, BLOCKING AND WEDGING:

This Contractor shall furnish all necessary grounds, blocking and wedging required to set all doors, transoms, trim, base, plumbing fixtures, etc. Grounds are to be 5/8" spruce and are to be securely set in the proper location. Backing for plumbing fixtures shall be as directed.

INTERIOR DOORS:

All interior doors throughout are to be made of first quality Fir and shall be made to the sizes as per details and as called for on the Plans.

EXTERIOR DOORS:

Exterior doors shall be of 1-3/4" #1 Clear Fir, hung on wood jambs and as shown on the Plans and Details.

DOOR FRAMES AND JAMBS:

All jambs for exterior doors shall be two (2") inch stock rabbeted 1/2" to receive the doors. All exterior jambs and interior jambs in masonry walls shall have a neat brick mold on one side and trim on the other side, as specified or detailed.

All jambs for interior doors shall be rabbeted.

WINDOW FRAMES AND SASH:

All windows, with the exception of the Auditorium, are to be double hung pattern, as shown and called for on the Plans and Details. All windows will he hung with #7 Sampson Sash Cord.

Windows for the Auditorium are to be Truscon Resident Steel casement windows, glazed with Cathedral glass, with zinc cames, as called for on the Plans.

Memorial Windows,as shown on the plans, will be furnished by the Owner but will be installed by this Contractor.

STAIRS:

Stairs are to be built as shown on the Plans and Details, with 1-1/8" treads,and 3/4" risers, unless otherwise noted on the Plans. Material shall be #1 Clear V. G. Fir or Hemlock.

PICTURE MOLD:

Picture mold, as detailed, shall be placed around all rooms on the first floor, with the exception of the Hall, Auditorium and Lavatory.

HARDWARE:

This Contractor shall include in his estimate, the sum of Two Hundred Dollars ($200.00) for finish hardware. Should hardware cost more than this amount, the Owner shall pay whatever additional is required and visa versa. All hardware shall be fitted and placed by this Contractor.

LEADERS:

All leaders shall be furnished by the General Contractor who shall provide the necessary nipples in wood gutter of the proper size to fit leaders. Leaders shall be 1-3/4" x 2-1/4" 26 gauge galvanized iron, spilling on the ground.

SHEATHING PAPER:

All sheathing paper, as indicated on the plans, shall be fifteen (15#) pound waterproof building paper. Paper shall be lapped at least two (2") inches and tacked sufficiently to hold in place.

FLASHING:

Provide and install 26 gauge galvanized iron flashing for chimney and over windows, where called for.

SIDING:

All exterior walls are to be sheathed with shiplap, as hereinbefore specified, and then covered with Cary 15# feltex, after which cover with Carystone Asbestos Siding. Siding shall be 12" x 24" Duo-Edge Old Colony #210 in color as selected.

All siding shall be laid in strict accordance with the manufacturer's instructions and specifications and is to be nailed with special alloy face nails, as furnished and recommended by the manufacturer.

SIDING: Con't.

Provide an extra layer of waterproof felt at all corners and flash over all openings with 26 gauge galvanized iron, nailed with galvanized nails.

BLACKBOARDS:

Where called for on the Plans, install Beckley-Cardy Slate-oplate Blackboards, or equal approved.

INTERIOR FINISH:

All interior walls and ceilings throughout the building, except as noted herein, shall be plastered, as specified.

Ceiling of Auditorium will be covered with 1/2" Temlock Panels 24" wide with V'd joints and blind nailed with 4 & 6 d finish nails. Color to be as selected.

Ceiling and partitions of Recreation Room are to be covered with 1/4" Plywood Wall Board, with the joints filled with an approved crack filler and sanded smooth.

The second floor, or attic, will not be finished except stair hall which will be plastered.

Front of Rostrum and Choir Loft shall be paneled with Artply 1/4" Plywood, with molding glued in place, in accordance with the manufacturer's specifications:

ALTERNATES:

This Contractor shall include as Alternates, the following items:

1. State amount to be added to Bid if Vapor-seal sheathing is used on all exterior walls and roofs instead of shiplap, as specified.

2. State the amount to be added to bid if Kimsul Insulation, as manufactured by the Kimberly-Clark Corp. is placed between the studding in accordance with the manufacturer's specifications, on all exterior walls on the first floor.

3. State amount to be added or deducted if Curtis Silentite window frames and sash are installed for all wood windows, in place of those specified.

4. State amount to be deducted if wood casements are provided for Auditorium instead of steel, as specified.

ROOFING

GENERAL:

All roofs shall be constructed as shown on the Plans and details. Cover entire roof area with 1" x 8" shiplap. Waterproof paper shall be applied over shiplap before shingles are laid, as hereinafter specified.

PITCHED ROOFS:

All pitched roofs are to be covered with cork insulated asphalt shingles, as hereinafter specified.

WATERPROOF PAPER:

Over the roofs to be shingled, one (1) layer of 15# waterproof paper shall be applied, paper to be lapped not less than two (2") inches and tacked along seams, sufficient to hold in place. At eaves, place three (3') foot strip of three ply roofing.

SHINGLES:

All shingles are to be Philip Cary Co. 12" x 36" thick butt three tab cork insulated 215# asphalt shingles. Shingles shall be nailed with an exposure of 5" and nailed with 12 gauge galvanized nails one (1") inch long, with a head 7/16" in diameter. Shingles shall be anchored at the butts with copper clips manufactured for this purpose. Color shall be as selected by the Owner.

HIPS AND RIDGES:

All hips and ridges shall be re-shingled with individual shingles of the same size, weight and blend.

ROOF FLASHING:

Flash and counterflash around all projections above roof, such as chimney, vents, etc., with 26 gauge galvanized iron.

VALLEYS:

For valley, use two (2) layers of 75# smooth Solka Base Roofing; first layer to be 36" wide, second layer to be 18" wide.

Valleys shall not be over three (3") inches,

MISCELLANEOUS IRON AND STEEL

STEEL:

All steel used throughout this Contract, either for rolled shapes, bolts, rivets, rods or rails, must conform to the specifications for structural steel, as adopted by the A. S. T. M.

All steel must be painted a coat of red lead and oil.

RAILING:

Provide a 1-1/4" galvanized iron welded pipe railing for side entrance, as called for on the Plans.

Provide all the necessary foundation bolts, and all rods, plates, washers, etc. for the trusses.

SHEET METAL WORK

WINDOW AND DOOR FLASHING:

Flash around all exterior doors and windows, as called for on the plans, with a strip of 26 gauge galvanized iron, three (3") inches wide. Nail with copper nails.

COPING:

All coping shall be 26 gauge galvanized iron, painted on both sides with one (1) coat of red lead. Standing seams shall be used throughout and shall be thoroughly soldered and sweated.

BASE FLASHING:

Base flashing shall be 26 gauge galvanized iron, painted with one (1) coat of red lead, flat seamed and soldered.

SCUTTLE:

Roof scuttle and scuttle curb shall be covered with 26 gauge galvanized iron, red leaded both sides. Curb shall be at least eight (8") inches high, flashed and counterflashed as detailed for parapet.

PAINTING WORK

GENERAL:

The General Conditions on the first pages of these Specifications shall apply to and form a part of this Contract.

SCOPE OF THE WORK:

This Contractor shall furnish and apply all necessary painting and puttying for all work indicated on the plans, or required under these Specifications, which in general shall be as follows:

All sash and frames
All stairways
All exterior wood trim and doors
All interior wood trim and doors
All wood floors
Walls of Auditorium and Sunday School Room

DELIVERY OF MATERIALS:

This Contractor shall deliver and store his materials as required on the work and as directed. Space will be allotted for the exclusive use of this Contractor, who shall assume all responsibility for the safety of his materials and for the repairing of the walls and floors of the space occupied for storage of his materials.

REPAIR AND PROTECTION:

Upon completion of the work, or when so directed by the Architect, this Contractor shall repair or correct any damage or faulty work that may have devloped in the painting work. Contractor shall also furnich necessary protection for all floors, plumbing and electric fixtures, and all walls and concrete work not to be painted. He must assume all responsibility for the proper condition of the work done by others as well as his own at completion of same.

REPAIR AND PROTECTION: Con't.

When so directed, and after completion of all other trades, it shall be the duty of this Contractor to examine all work, whether under this trade or not, and correct any abfasions or scratches on doors due to the installation of hardware, and clean or repaint all walls due to the installation of electric or plumbing fixtures.

MATERIALS:

Materials shall be delivered to the building in the manufacturer's sealed and labelled packages. Materials shall be those specified and no substitutions shall be made, except on written approval of the Architect. Any materials used, other than those specified and approved by the Architect in writing, shall be at the Contractor's own expense and any work done with unapproved materials shall be done over with approved materials at this Contractor's own expense.

White Lead. All white lead used shall be soft paste white lead, or basic carbonate of lead, theoretically composed of two molecules of lead carbonate and one of lead hydroxide, based on the chemical formula $2Pb\ CO_3, Pb\ (OH)_2$. The composition based on the formula is approximately:

Lead Carbonate	69%
Lead Hydroxide	31%

Linseed Oil. All linseed oil used shall be boiled or raw linseed oil, as required and same shall be of the best quality pure oil.

Turpentine. All turpentine shall be of the best quality pure spirits and of the manufacture approved by the Architect. Turpentine shall be used only for thinning, where in the judgment of the Architect, it is required.

MATERIALS: Con't.

Shellac. All shellac shall be best quality, pure white shellac, graded with pure grain or denatured alcohol,

Putty. Putty shall be of 20% white lead putty and shall be colored to match the finished coat.

Dryers. Dryers are to be of the best grade Japan dryers or turpentine liquid dryers, as approved.

MIXING:

All paint shall be mixed on the premises in approved proportions as required. It shall be the duty of this Contractor to protect floors and surrounding walls so as to prevent damage or oil stains, as specified under "Protection".

APPLICATION:

All surfaces are to be thoroughly cleaned before painting and paint shall be applied evenly and smoothly and when finished shall be free from all brush marks. All surfaces shall be sandpapered between coats and sufficient time shall be allowed for paint to thoroughly dry. All work shall be puttied the color of the paint to be applied. It shall be the duty of this Contractor to examine all priming coats on either wood or metal work and assure himself that same is of sufficient quality to receive his work. All abrased or rusted surfaces shall be thoroughly cleaned, scraped and reprimed by this Contractor before applying the paint. All woodwork shall be thoroughly dry cleaned of all foreign matter and thoroughly puttied as specified before any paint is applied. All knots and sap spots shall be covered with shellac, as specified.

PRIMING:

All woodwork, except as otherwise specified, shall receive a prime coat of linseed oil. Prime coat shall be mixed with thirty (30) pounds of pigment to one (1) gallon of oil, which shall be thoroughly mixed and well ground together before applying. Pigment to be 80% lead and 20% zinc oxide. Oil to be 80% boiled linseed oil and 20% turpentine.

EXTERIOR WOODWORK:

All exterior woodwork throughout the bilding shall be primed, puttied and given two (2) coats of lead and oil paint, as hereinafter specified, in color as selected by the Owner. This includes all sash, doors, frames, cornices, etc.

WOOD FLOORS:

All wood floors, after they have been finished and sanded by the Floor Contractor, shall be given two (2) coats of floor Preservative, Fuller or equal approved, and one (1) coat of wax.

INTERIOR TRIM:

All interior woodwork, except Kitchen and Lavatories, shall be stained and finished as hereinafter specified.

All woodwork shall be dry, clean and smooth before any finish materials are applied. All nail holes, cuts, cracks, and other defects shall be treated to render them unnoticeable.

Apply one (1) coat of Sherwin-Williams, or equal approved, oil stain in the shade as selected by the Owner. Apply two (2) coats of S-W Rexpar Varnish, as follows:

INTERIOR TRIM: Con't.

First coat shall be thinned with pure turpentine in proportions of one (1) pint to the gallon. Second and third coats are to be applied in the consistency supplied by the manufacturer. Allow time for drying between coats and sand first coat lightly with No. 00 sandpaper. When sufficiently dry, rub the varnish to a dull finish with powdered pumice stone and water.

All woodwork in the Kitchen and Lavatories shall receive one (1) coat of flat and one coat of eggshell enamel, in addition to the priming coat. Sandpaper between coats, as directed. Color to be as selected.

INTERIOR WALLS:

Interior walls are not to be painted, except Auditorium Lobby, Kitchen, Lavatories and Basement, which will receive one (1) coat of size and one (1) coat of washable cold water paint.

Plywood ceilings and partitions in Basement shall receive one (1) coat of oil stain, as selected.

Temlock on Auditorium ceiling will not be painted.

ELECTRICAL WORK

GENERAL:

The General Conditions on the first pages of these Specifications apply to and form a part of these Specifications.

SCOPE OF THE WORK:

The Electrical Contractor shall furnish and install all wiring materials necessary to complete the electrical installation hereinafter defined or indicated on the drawings, using wiring materials as designated. When the materials thus designated as Approved Standard under normal conditions are not applicable to the conditions of the installation, the Contractor shall install companion items of approved manufacture. All fittings and accessories not indicated in this specification, or the drawings, but necessary to complete the installation, shall be furnished by this Contractor as tho herein defined in detail, and they shall be of a type or grade appropriate to the quality of specified parts. No substitution of material of another manufacture nor of a quality or type inferior to the typical item designated as standard, shall be made without written permission from the Architect.

RULES:

All materials supplied and all work done under these Specifications shall comply with the requirements of the National Board of Fire Underwriters and such Territorial Laws as may have jurisdiction over work of this character.

TEST:

Upon completion, the system shall be thoroughly tested by the Contractor in the presence of the Architect.

GUARANTEE:

The Contractor shall guarantee to make good any defects in workmanship or in materials furnished which may develop within one (1) year from the date of acceptance.

CUTTING AND PATCHING:

All cutting for installation of electrical work is to be avoided as far as possible. During the construction of the building, this Contractor is to furnish and set all sleeves and all inserts for supporting conduits and other apparatus as may be necessary. This Contractor will be held responsible for the timely and proper setting of all these sleeves and inserts and any drilling, cutting or patching required in connection with the installation of this apparatus or due to defective material or faulty workmanship will be done at the Contractor's expense.

SERVICE ENTRANCE WIRING:

From the main switch, run three (3) lines of G-E Code Wire in G-E Rigid Conduit to a point at the rear of the building. Provide a waterproof entrance head of an approved design and anchor three (3) 5/8" eye bolts in wall for securing service wiring at this point. Service connections outside of the building, except as above specified, will not be a part of this Contract, but the Contractor shall consult with the Power Company regarding the installation of this portion of

SERVICE ENTRANCE WIRING: Con't.

the work. Service wire shallbe of sufficient size to carry the entire load with all circuits fully loaded with a voltage drop of not to exceed 2% of the line voltage.

MAIN SWITCH:

Provide one (1) Trumbull Combination Service Switch and Panel # HP 307 flush type mounting, with one (1) range circuit and seven (7) branch light circuits, 100 amp. Main Switch complete and install in stair hall, where shown on the Plans.

CONDUITS:

All conduits used in this work shall be G-E white or black rigid conduit, as manufactured by the General Electric Co., or equal approved.

SWITCHES:

Switches shall be single pole compound Box Flush Tumbler switches, such as G.E. 2842, placed 48" above floor level.

CONVENIENCE OUTLETS:

Convenience outlets shall be top wired Twin Convenience outlets, such as G.E. 2534, placed as directed.

SWITCH AND CONVENIENCE OUTLET PLATES:

Unless brass plates are designated, all switch and outlet plates shall be Textolite.

WIRE:

All wire used throughout the building shall be G.E. Intermediate grade rubber covered Wire Flame retarding finish, unless otherwise noted, or equal approved. This wire shall be approved by the National Electric Code. No wire smaller than #14 B & S gauge shall be used. All conductors of #8 B & S gauge or larger shall be stranded. Splices shall be made both mechanically and electrically perfect, soldered and the proper thickness of rubber and friction tape applied.

NON-METALLIC SHEATHED CABLE:

All wiring for lights and receptacles except in concrete walls and slabs, shall be G. E. Braid X Non-Metallic Sheathed Cable, or equal approved. All Braid X shall be installed in continuous runs from outlet to outlet, with no taps, except at outlets. All outlets and switches shown in concrete walls or floors shall be run in rigid iron conduit.

POWER CIRCUITS:

All power circuits shall be carried in G. E. BX Armoured Cable, or Rigid Conduit, as required.

HEATING WIRING:

This Contractor shall be required to do all wiring in connection with the Oil Burner. All wiring for Oil Burner shall be in rigid iron conduit, installed according to the requirements of the National Board of Fire Underwriters.

FIXTURES:

This Contractor shall include in his estimate, the sum of THREE HUNDRED DOLLARS ($300.00) for lighting fixtures. Should the cost exceed this amount, the Owner will reimburse the Contractor and visa versa. This Contractor shall hang all fixtures as part of his Contract.

RADIO WIRING:

Install where shown on the plans, one (1) combination antenna and ground outlet, with A. C. Convenience receptacle, running one wire to ground and one to attic space. Run two (2) lines of Antenna wire the length of attic between collar beam and ridge of roof.

Install two (2) #14 wires from Belfrey to Pulpit for future loud speaker.

Run two (2) #14 wires from Pulpit to exterior of building at Service Entrance head for Radio hookup.

S P E C I F I C A T I O N S

Of LABOR and MATERIALS to be Furnished in the INSTALLATION

Of the PLUMBING AND HEATING of the

FIRST PRESBYTERIAN CHURCH

For The

BOARD OF NATIONAL MISSIONS OF THE PRESBYTERIAN CHURCH

At

JUNEAU, ALASKA

In Accordance With The Accompanying Drawings, These Specifications and Instructions.

****

N. LESTER TROAST & ASSOCIATES
Architects
Juneau Anchorage
Alaska.

Job No. 388 - A

July 27, 1938.

PLUMBING WORK

GENERAL CONDITIONS:

The General Conditions on the first pages of these Specifications shall be considered a part of these Specifications, whether attached hereto or on file in the Architect's office.

SCOPE OF THE WORK:

This portion of the Specifications covers the furnishing and complete installation, ready for operation, of the Plumbing and other fixtures, sanitary and drainage systems, hot and cold water supply within the building and outside sewer and water supply systems. All work shall be in strict accordance with the City Ordinance covering this work, except as otherwise noted.

TIME AND MANNER OF PERFORMING THE WORK:

The plumbing work shall be performed in harmony with the other work on the building and at such times as may be directed by the Architect. All plumbing and sewerage systems shall be installed in accordance with the National Bureau of Standards requirements.

This Contractor shall do all necessary cutting and altering of structural work required for the plumbing. subject to the approval of the Architect.

The Contractor shall clear away, as directed, all rubbish resulting from his operations; he shall not deface or damage any portion of the building and shall deliver all work under this Contract in a clean and perfect and complete condition.

CAST IRON SOIL PIPE, FITTINGS AND CONNECTIONS:

All soil, waste, vent and drain piping in the building two (2") inches in diameter or larger, shall be heavy cast iron soil pipe and fittings and conforming to standard weight, and size.

All changes in pipe size on soil, drain and vent lines must be made with reducing fittings or recessed reducers. "Y" fittings shall be used for connections for branch lines to fixtures and on vertical runs of pipe.

All joints between cast iron pipe shall be made with picked oakum gaskets and pig lead; joint shall be run full at one pouring and calked solid, flush with hub.

SOIL, WASTE, VENT AND DRAIN PIPING:

Horizontal soil and waste pipes in the buildings shall be given a grade of 1/4" per foot where possible but in no case less than 1/8" per foot. All vertical soil and waste stacks shall be extended full size to and above the roof line as vents.

FLASHING CONNECTIONS:

Openings in roof for stacks or vent pipes shall be provided with approved type roof flange, or shall be flashed and soldered water tight. Use lead flashing wherever possible, carrying lead up to top of pipe and down on the inside two (2") inches.

CLEAN OUTS:

Rodding holes or clean outs with cast brass screw plugs shall be installed on ends of soil and drain pipe where shown on the Plans.

COLD WATER PIPE:

All cold water supply piping in the building shall be galvanized iron pipe. Fittings shall be galvanized malleable iron, standard beaded pattern.

HOT WATER PIPE: FITTINGS AND CONNECTIONS:

All hot water supply lines and pipes in the building shall be galvanized iron pipe.

Fittings and couplings shall be galvanized malleable iron and designed for 150 pounds water pressure.

FLOOR, WALL AND CEILING PLATES:

All exposed pipe and sleeves which pass thru floors, walls or ceilings shall be fitted with plates.

MATERIAL AND FINISH OF FIXTURE TRIMMINGS:

All exposed metal trimmings to fixtures consisting of exposed supplies, valves, wastes, traps, etc. shall be chromium or nickel plated brass pipe and fittings.

TYPE OF FIXTURES:

The following schedule indicates the type of fixtures to be furnished and installed, complete as shown and described, in the rooms of the building as indicated on the plans and specified herein.

All reference to size and numbers of fixtures are taken from Standard Sanitary Mfg. Co. Catalog and all fixtures shall be equal thereto.

FIXTURES:

Lavatory: Standard Hexagon P 3867 G, 22" x 19" cast iron enamel lavatory, with 3/8" angle wall supply, 1-1/4" "P" trap and K 700 Y combination lavatory fittings. 3 required.

Urinal: Chinal F-6000 Vitreous China Urinal Stall, with Sloan Star Flush Valve. 1 required.

Toilet: Standard Modernus F 2186, straight front syphon action wash down closet, with jet. Church Regal Seat with cover #600. 2 required.

Kitchen Sink: P 7007 enameled flat rim two compartment sink, 32" x 20" x 7", with 1-1/2" "P" trap and with B 989 Crumb Cup Strainer and B 906 S combination swing spout faucet with lift off metal soap dish.

TEST FOR PLUMBING AND DRAINAGE SYSTEMS:

The entire system of soil, waste and vent piping in the building shall be tested with water or air, as directed, and proved tight to the satisfaction of the Architect, before connection is made to the sewer, trenches backfilled, piping covered and fixtures connected.

WATER SUPPLY SYSTEMS, VALVES, ETC.:

The cold water supply branches with connections shall be made to all plumbing and other fixtures throughout the building, as shown on the plans and provided with the necessary valves, fittings, etc.

The hot water supply shall be run from the hot water tank to the various fixtures throughout the building, as shown on the plans and shall be provided with the necessary valves, fittings, etc.

WATER SUPPLY SYSTEMS, VALVES, ETC.: Con't.

All main water supply pipes and branches shall be run concealed in floor joists and partitions.

In the event of all sizes of water pipe not being noted on the plans, the specifications shall govern, as follows:

3/4" mains, throughout
3/4" hot and cold water to sink
1/2" hot and cold water branch to all other fixtures, except toilets, which shall have cold water only.

INSPECTION:

When all work herein is completed, Contractor shall secure from the City Sanitation and Health Department, or other proper officials if required, and shall furnish free of cost to the Owner, a certificate of inspection, signed by one in authority, certifying that all plumbing work has been properly installed.

HOT WATER TANK:

Provide and install in full working order, a 52 gallon galvanized iron hot water tank. Tank to be located in the Boiler Room and shall be heated by coils in Kitchen Range and an Adjusto Coil in Furnace. Kitchen Range, complete with coils will be furnished by Owner but this Contractor shall make connections to same. Provide a drain with valve on cold water side of each coil and on bottom of Hot Water Tank, as directed.

SILL COCKS:

Provide and install two (2) sill cocks, one in front and one in rear of building, where directed, with a stop and waste located in the Boiler Room.

GUARANTEE:

Contractor shall guarantee the work included under these Specifications and the continuous operation of same in the building for a period of one (1) year from the date of acceptance and agrees to make good at his own expense, repair or replace any part of the installation which may show defect during that time, provided that such defect, in the opinion of the Architect, is due to imperfection in the material or workmanship. He shall also guarantee that sufficient and proper air chambers are provided on water lines as will prevent pounding and snapping when faucets are opened or closed.

SEWER:

This Contractor shall carry sewer outside of building five (5') feet.

HEATING SYSTEM

GENERAL CONDITIONS:

The General Conditions on the first pages of these Specifications shall be considered a part of these Specifications whether attached hereto or on file in the Architect's Office, and shall be read by this Contractor and the same becomes a part of and will govern all work under this trade.

Contractor shall visit site so as to familiarize himself with the conditions that he must work under.

SCOPE OF THE WORK:

The heating system shall consist of what is known as an Air Conditioning System, said heat to be propelled or forced to all parts of the building by mechanical driven fan.

HEATER:

The air to be warmed by a Montag No. 1000 Steel Tubular Oil Burning Unit, or equal approved, having a capacity of not less than 216,000 B.T.U., at minus 20°, with a normal rating of 3,000 C.F.M.

BLOWER:

Blower shall be a 3A Montag, or equal, with a 1/2 horsepower 110 volt, 60 cycle single phase motor, complete with filters, automatic blower switch, etc.

AIR VOLUMN:

The total air volumn shall be equal to the amount of eight (8) complete changes of air per hour, for each and every room, which amount shall be thereby supplied to each room.

TRUNK SUPPLY LINES:

All trunk supply lines larger than 88 sq. in. section shall be of 26 gauge galvanized iron, joints shall be formed with an angle S cleat. Cover all joints with 10# asbestos, as hereinafter specified.

WARM AIR SUPPLY:

Each room shall be provided with a warm pipe connection which provides sufficient free area for eight (8) complete changes of air per hour, at a velocity in said pipe, not to exceed five hundred and fifty (550) feet per minute, for basement pipe; or four hundred fifty (450') feet per minute for riser pipe.

All register boxes, risers and leads from trunk lines shall be of 28 gauge galvanized iron, using S and drive cleats at joints. All joints shall be neatly covered with one thickness of ten pounds (10#) asbestos paper, pasted on with heat-proof paste. All bends and turns shall be gradual, with a throat radius of not less than the depth of the pipe.

All warm air boots shall be the angle type. Where proper free area is required, allow for same at all connections.

COLD AIR RETURNS:

There shall be cold air connections as shown on the plans, so that air can be taken from each room, as shown. The combined square inch area of these pipes shall be equal to ten (10%) percent more than the warm air supply. Said cold air pipe shall be made of 26 gauge galvanized iron. Where shown between joists, cover bottom of joist with 28 gauge galvanized iron.

DUCT PAINTING:

All exposed ducts shall be given one (1) coat of Heat Resisting enamel, of color as selected. Paint the interior of all boots at registers and grilles with one (1) coat of black heat-resisting paint.

REGISTERS AND GRILLES:

All registers, unless otherwise specified, shall be F-100 Waterloo Directional Wall Type and shall be located not less than eight (8') feet from finished floor.

COLD AIR GRILLES:

Return Grilles shall be Waterloo fabrickated steel, standard mesh, oak finish.

WORKMANSHIP:

The installation of this system shall be made in a neat and workmanlike manner. The units shall be installed strictly in accordance with the manufacturer's instructions, set level and vertical; all joints be securely packed with manufacturer's special cement and made gas-tight.

The base ring for casing shall be securely cemented on the inside and made air-tight between the ring and floor. All joints shall be made air-tight.

HOT WATER COIL:

Hot Water coil shall be furnished with the Furnace and this Contractor shall connect same to Hot Water Tank.

BREECHING:

Furnish and install a black iron smoke pipe from furnace to chimney of 20 gauge iron. Connections at furnace must be of the same size and area as the smoke hood of the furnace. It must have a gradual rise

BREECHING: Con't.

from furnace to chimney with no restrictions in area where the pipe enters the chimney flue.

OIL BURNER:

Install in furnace, an automatic oil burning system, Ray XP-1 or equal, capable of delivering from 4 to 8 gals. per hour. Controls to be furnished shall be a limit control, master control with automatic cut-off built in and thermostat for low voltage operation.

Burner Guarantee: The Burner shall be guaranteed against failure of any part to defective materials or workmanship and shall be guaranteed to maintain a temperature of 70 degrees fahrenheit in zero weather.

Burner Safety Control Requirements: The Burner shall incorporate approved controls which will safeguard the oil burning installation under any of the following:

Failure of ignition.
Failure of power supply.
Any conditions which prevents motor from operating at normal speed.
No oil in tank.
Excessive water in tank (oil).
A reduction in quality of fuel delivered to Burner.
Failure of combustion or any abnormal condition.

Burner shall be guaranteed to handle No. 24 plus Western Deisel Oil.

OIL TANK:

The tank shall be a 16 bbl. capacity made from Open Hearth Tank steel, free from defects. Tank steel shall be 12 gauge steel throughout. All seams shall be welded, heads and belly seam reinforced with one (1") inch channel iron.

OIL TANK: Con't.

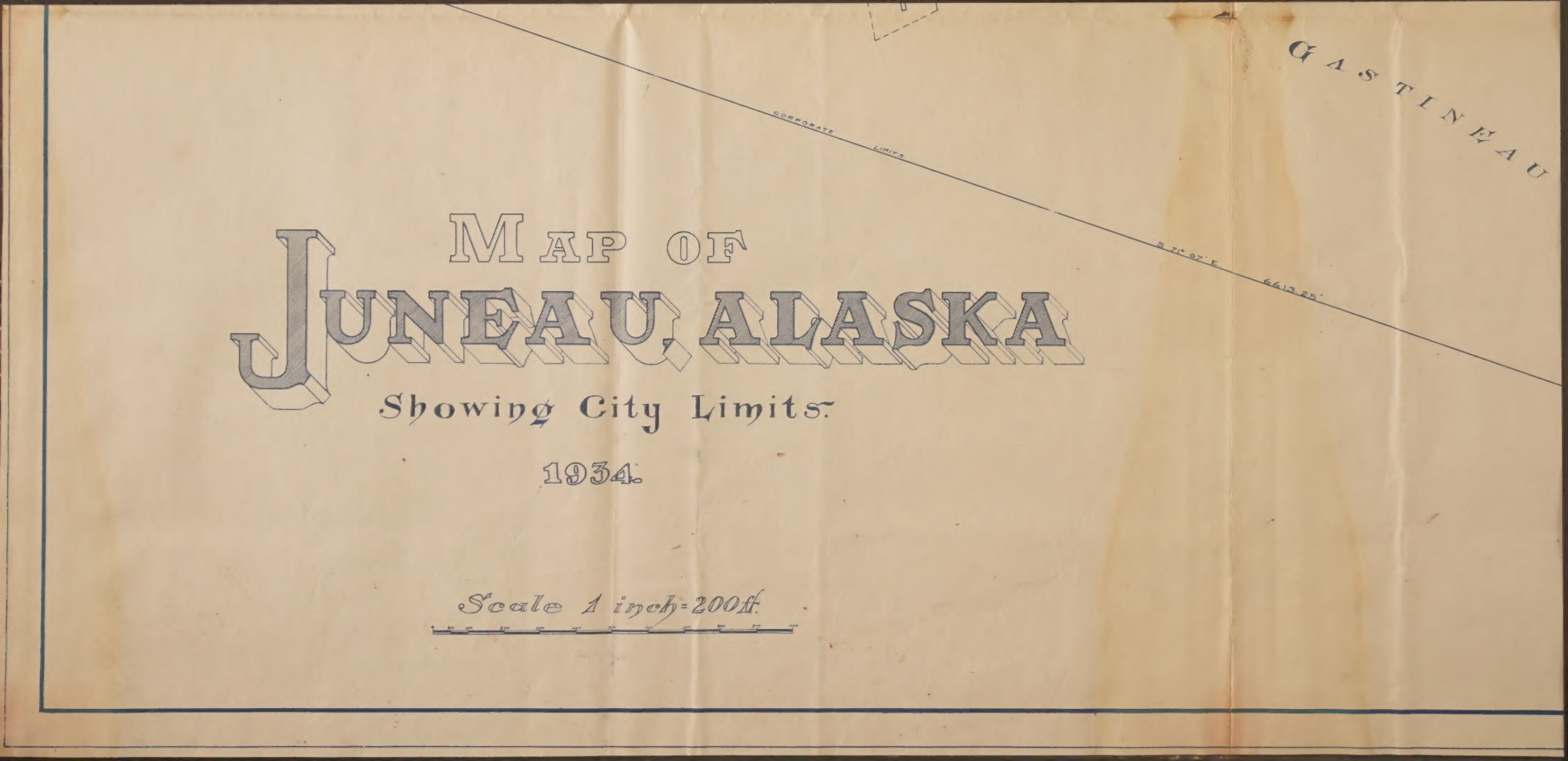
Tank shall be painted two (2) coats of rust resisting paint. Tank shall obtain the necessary openings for fill, vent, suction, return gauge and clean out connections.

OIL PIPING:

The oil piping system shall consist of necessary fill pipe, vent pipe, suction line and return oil pipe from tank to the Burner. All necessary fittings, valves, fill box, etc. shall be a part of the piping system. Suction and return line will be of soft copper tubing..

NOTE:

All special wiring, not included in the Electrical Specifications, for the Heating Plant, shall be done by this Contractor. (See Electrical Specifications.)



MAP OF JUNEAU, ALASKA

Showing City Limits

1934

Scale 1 inch = 200 ft.

Cor 9

N 62° 10' W 1336.84'

Boston No 1

N 68° 35' W 1649.10'

Cor 8

N 57° 43' W 834.84'

S 41° 32' W 538.60

Cor 7

N 41° 32' W 818.20

N 41° 17' W

Gen 6

S 47° 28' E

Cor 10

S 56° E 422.52'

Cor 11

USLM No 3

S 0° E 2000.0'

Cor 12

Speldon Homestead.

Addition

Evergreen Cemetery

Boston No 1

Boston No 2

Gold Creek

Power Co Flume

Electric Light

Alaska

Basin Road

APRIL 517

1953

WH

MERRAY ST

VICTOR ST

HERMIT ST

JOHNSON ST

RHEINHARDT ST

IRWIN ST

TWELFTH ST

ELEVENTH ST

TENTH ST

NINTH ST

EIGHTH ST

SEVENTH ST

SIXTH ST

FIFTH ST

FOURTH ST

THIRD ST

SECOND ST

FRONT ST

GOLD BELT AVE

CALHOUN AVE

INDIAN AVE

DISTIN AVE

DIXON AVE

MAIN ST

WEST ST

BASIN ROAD

EAST ST

FRANKLIN ST

SEWARD ST

SHATTUCK ST

HARRIS ST

GOLD ST

STUKEAU FIRE DEPARTMENT BASE BALL GROUNDS

HOSPITAL

PIPE LINE

ALASKA ELECTRIC LIGHT & POWER COMPANY

GOVERNMENT DOCK

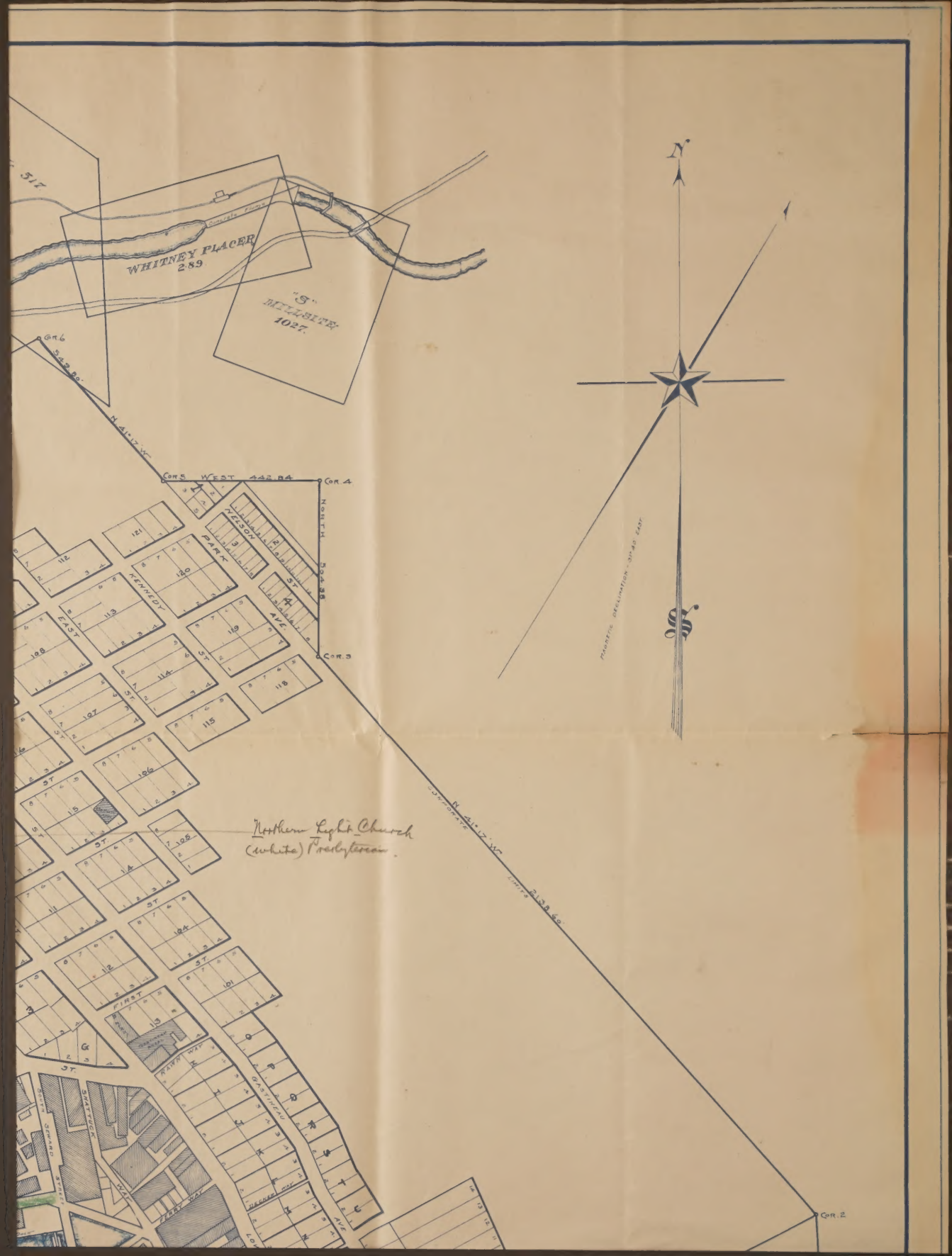
DOUGLAS ISLAND

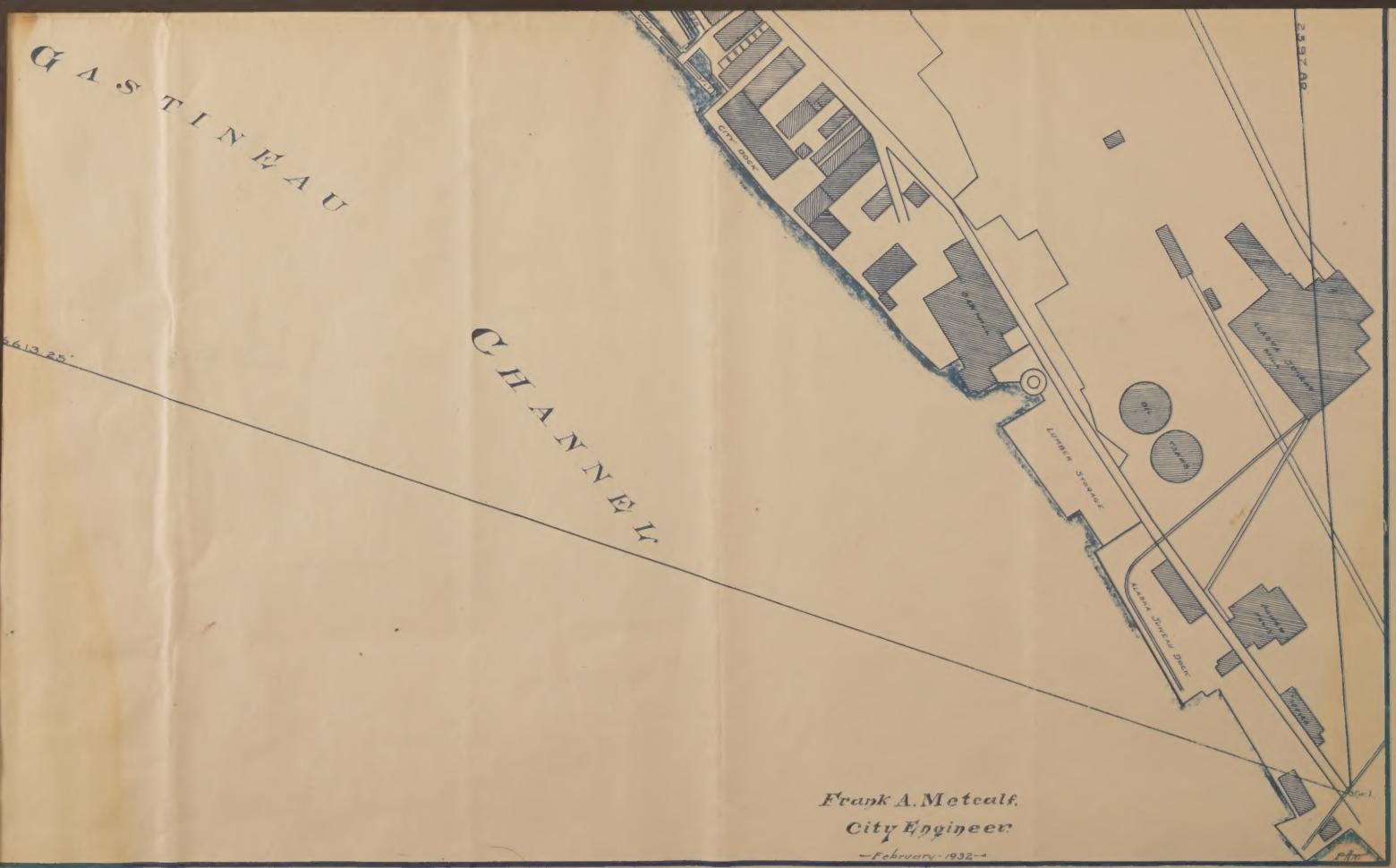
SOUTH 2000.0'

N 60° 30' E

80 ft on E St

90 ft on B St.


WHITNEY PLACER
289
"S"
MILLSITE
1027
Gr 6
S 42 E 80.
N 41½ W
Cor 5
WEST 442.84
Cor 4
NORTH 304.38
Cor 3
PARK
KENNEDY
EAST
PERSON
ST
AVE
Northern Light Church
(white) Presbyterian
N 41½ W
1173.2 P 238.69
Cor 2
MAIN
FIRST
SECOND
THIRD
ALDER
MAPLE WAY
GASTINEAU
MAGNETIC DECLINATION - 31° 40' EAST
N


GASTINEAU
CHANNEL
Frank A. Metcalf.
City Engineer
February - 1932.